

REMARKS

Reconsideration and re-examination are respectfully requested.

Rejections under 35 U.S.C. §103

Claims 1, 3-6, 8-11 and 13-15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sand et al. (US 6,148,322, hereinafter Sand) in view of Applicants' Admitted Prior Art.

Sand:

Sand describes, in the abstract:

"...The present invention provides a processing unit with an improved ability to coordinate the execution of multiple tasks with varying priorities. Tasks to be executed are assigned both a request condition and a terminating condition, with the processing unit initiating execution of the task with the highest priority whose request condition is satisfied...."

Sands describes in more detail at column 3, lines 40-65:

"...According to the present invention, efficient processing by the central processing unit 1 is facilitated by dividing the individual jobs to be processed into a set of separate tasks, each of which can be executed by the central processing unit 1. Each task is then assigned a respective priority. Examples of these tasks for an embodiment of the present invention are illustrated in FIG. 2, with the lowest priority task at the bottom of the list and the highest priority task at the top...."

Thus Sands describes associating tasks with priorities. At column 5, lines 15-30, Sands describes:

"...The microprocessor 5 of the central processing unit 1 is capable of executing only one task at any given instant. Thus, every task--except for the cyclically-repeated task zwT--is assigned a request condition and a terminating condition to assist in coordinating execution of the various

tasks. For example, if a request condition for a task having a priority greater than that of the currently-executing task becomes satisfied, the central processing unit 1 will terminate the currently-executing task and initiate execution of the higher priority task. As a general rule, the execution of this newly-initiated task will not be terminated until either (a) the request condition for a task having an even higher priority is satisfied; or (b) the terminating condition of the task becomes satisfied. The central processing unit 1 thus executes tasks in an event-driven manner...”

In characterizing task priorities, Sands describes, at column 1, lines 7-12:

“...The present invention relates to processing units for computer systems, and in particular to a processing unit capable of coordinating the execution of multiple tasks having varying degrees of priority. Such processing units typically include a high-priority task, a low-priority task that is always executable, and numerous additional tasks having priorities at varying levels between the high-priority and low-priority tasks. Each of these tasks is executable by the processing unit, but only one task may be executed at any given point in time. Accordingly, the processing unit must coordinate the execution of these tasks to ensure all such tasks are executed in timely fashion...”

Thus Sands describes a system wherein tasks are associated with priorities, but neither describes nor suggests changing the priority associated with a task.

At page 3 of the office action the Examiner alleges that the step of ‘raising the operating routing system task to a high priority’ is taught at col. 2, lines 12-16 of Sands by ‘execute higher priority task upon the received satisfaction of the request condition...’ Applicants respectfully note that upon a careful reading of Sands, Sands is clearly stating that *a different* task of *higher priority* is being performed when a request condition is satisfied. Applicant maintains their position that there is no teaching or suggestion in Sands of modifying the priority of any task once the task has been assigned.

The Examiner states that ‘Sand did not clearly disclose the triggering condition comprises a link state advertisement message. Nevertheless, a link state advertisement routing protocol message is considered well known and disclosed in AAPA on page 1 lines 19-31. Therefore, it

would have been obvious to one of an ordinary skill in the art, at the time the invention was made to incorporate the link state routing protocol message with Sand's high priority tasks to be performed once the condition is met (Sand: col. 2 lines 12-16).

Applicant's Argument

The requirements for establishing a *prima facie* case of obviousness as set out in the MPEP Section 2143.01 require that the references when combined: (1) teach all of the claimed limitations; (2) that there be a motivation/reason to combine the references; and (3) that there be a reasonable expectation of success in realizing the claimed invention. (The third requirement is only relevant to claims covering chemical inventions, and therefore is not discussed below.)

Before setting forth a discussion of the prior art applied in the Office Action, it is noted that the United States Supreme Court recently addressed the motivation/reason requirement that an Examiner must satisfy in order to determine that the subject matter of a claim is obvious based on the combination of two or more references. Specifically, in the ruling in *KSR International Co. v. Teleflex Inc. et al.*, 550 U.S. (2007), the United States Supreme Court stated: "Often, it will be necessary ... to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was **an apparent reason** to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, **this analysis should be made explicit**. ... it can be **important to identify a reason** that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." (emphasis added)

It is further noted that the opinion of the United States Supreme Court is explicitly mandated in the USPTO memo to the Technology Center Directors from Margaret A. Focarino, Deputy Commissioner for Patent Operations, on May 3, 2007, which states:

"Therefore, in formulating a rejection under 35 U.S.C. § 103(a) based upon a combination of prior art elements, **it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed.**" (emphasis added)

The Examiner states merely that it would be obvious to combine them, but provides no reason as to why one would be motivated to do so. Applicant's note that the communication bus of Sands is, in fact, a device bus used to couple peripheral devices and CPUs, and that there is no mention or suggestion that the communication bus is a Local Area Network (LAN) bus which would use a link state protocol. Rather it is clearly a bus that is internal to a processing unit. Accordingly, for at least the reason that the Examiner has failed to provide a reason why one would be motivated to combine the references as claimed, the rejection fails as improper.

However, assuming some basis could be found for the rejection, as best the Applicant can understand the Examiner's position, it would appear that the Examiner is stating that the routing task would be a high priority task with an input request condition of a link state advertising message. Such a conclusion fails to support the dynamic nature of task priorities of the present invention so that a routing task may have a different priority given the demands of the system. In Sands, the priorities of the tasks do not change, rather just the current task that is executed changes according to its priority and the request conditions. Such a system is fundamentally different than that of the claimed invention.

Therefore, even if a motivation or reason could be found to modify Sands as suggested by the Examiner, the combination still would neither describe nor suggest the limitations of the claims, such as claim 1, which describes:

“...A computer implemented method for expediting a selected operation in a computer system, the method comprising:

associating a plurality of routing operations with an operating system routing task, the plurality of routing operations including the selected operation, wherein the operating system routing task is one of a plurality of operating system tasks executed by an operating system included in the computer system;

executing the operating system routing task at a low priority level prior to performing the selected operation; and

raising the operating system routing task to a high priority level in order to perform the selected operation in response to a detection of a trigger condition comprising a link state advertisement protocol message indicating that the selected operation is to be performed, wherein the raising the operating system routing task to the high priority level causes the operating system routing task to execute without being interrupted by at least one other operating system task running at the low priority....”

Independent claim 6 includes “...the operating system including task priority control logic operably coupled to execute the operating system task *at a low priority level prior to performing the selected operation and raise the operating system task to a high priority level in order to perform the selected operation upon detection of a trigger condition, the trigger condition comprising receipt of a link state advertisement protocol message*, wherein the raising the operating system task to the high priority level causes the operating system task to execute without being interrupted by at least one other operating system task running at the low priority....”

Independent claim 11 recites "...task priority control logic programmed to execute an operating system task associated with a plurality of operations including the selected operation at *a low priority level prior to performing the selected operation and raise the operating system task to a high priority level in order to perform the selected operation upon detection of a trigger condition including receipt of a link state advertisement protocol message*, wherein the operating system task is one of a plurality of operating system tasks executed by an operating system included in the computer system, and wherein the raising the operating system routing task to the high priority level causes the operating system routing task to execute without being interrupted by at least one other of the plurality of operating system tasks running at the low priority..."

Sands, in combination, neither describes nor suggests the limitations of the independent claims. Accordingly, for at least these reasons, independent claims 1, 6 and 11 are distinguished over Sands in view of AAPA. Dependent claims 3, 5, 8-10 and 13-15 are allowable for at least the reason that they serve to limit allowable parent claims.

Conclusion:

Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Applicant's Attorney at 978-264-4001 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

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Date

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